

## B. REMARKS

Claims 7 and 15-20 have been canceled in this RCE. Hence, Claims 1, 2, 4-6, 8, 9 and 12-14 are pending in this application. The amendments to the claims do not add any new matter to this application. All issues raised in the final Office Action mailed April 26, 2010 are addressed hereinafter. Reconsideration is requested in view of the amendments and remarks provided herein.

### TELEPHONE INTERVIEW

The Examiner and the Examiner's supervisor are thanked for the telephone interview conducted with the undersigned on July 26, 2010. Possible amendments to Claim 1 to further distinguish Claim 1 over the *Perkins* and *Shin* references were discussed. An additional reference *Katamoto*, U.S. Patent Publication No. 2003/0202808 (hereinafter "*Katamoto*") was also discussed and remarks are provided hereinafter with respect to *Katamoto* reference.

### REJECTION OF CLAIMS 1-2 AND 7-9 UNDER 35 U.S.C. § 103(a)

Claims 1-2 and 7-9 are rejected under 35 U.S.C. § 103(a) as being unpatentable over *Perkins*, U.S. Patent Publication No. 2003/0184782 (hereinafter "*Perkins*") in view of *Shin*, U.S. Patent No. 6,351,320 (hereinafter "*Shin*"). This rejection is moot with respect to cancelled Claim 7. It is respectfully submitted that Claims 1, 2, 8 and 9, as amended, are patentable over *Perkins* and *Shin*, considered alone or in combination, for at least the reasons provided hereinafter.

### CLAIM 1

Claim 1, as amended, is directed to an apparatus and recites:

"a non-volatile storage device;  
an application program; and  
a printer driver configured to

retrieve configuration data from a printing device, wherein the configuration data includes command data and program logic data, wherein the program logic data indicates dependencies between installed options and option attributes on the printing device,  
cause the configuration data to be stored on the non-volatile storage device,  
use the command data included in the configuration data to translate a first command generated by the application program into a second command supported by the printing device;  
use the program logic data retrieved from the printing device to:

generate one or more graphical user interface objects that are displayed on a graphical user interface in association with the printing of an electronic document to the printing device, wherein the one or more graphical user interface objects indicate the installed options and available option attributes for the printing device as indicated by the program logic data, and  
in response to a user selection, from the one or more graphical user interface objects, of a particular graphical user interface object that corresponds to a particular installed option, generate and cause to be displayed on the graphical user interface one or more other graphical user interface objects that visually depict one or more option attributes that are available for the particular installed option on the printing device.”

The apparatus recited in Claim 1 includes a printer driver that is configured to retrieve configuration data from a printing device. The configuration data includes command data and program logic data. The printer driver uses the command data to translate commands generated by an application program into commands supported by the printing device. The program logic data indicates dependencies between installed options and option attributes on the printing device. The printer driver uses the program logic data retrieved from the printing device to generate graphical user interface objects that are displayed on a graphical user interface in association with the printing of an electronic document to the printing device. The graphical user interface objects indicate the installed options and available option attributes for the printing device as indicated by the program logic data.

The printer driver also uses the program logic data retrieved from the printing device to update the graphical user interface in response to user selections. In particular, in response to a user a user selection, from the one or more graphical user interface objects, of a particular graphical user interface object that corresponds to a particular installed option, the printer driver generates and causes to be displayed on the graphical user interface one or more other graphical user interface objects that visually depict one or more option attributes that are available for the particular installed option on the printing device. For example, suppose that a user selects a particular graphical user interface object that corresponds to the media types for the printing device. The printer driver uses the program logic data to generate and cause to be displayed on the graphical user interface one or more other graphical user interface objects that visually depict

the media types that are available on the printing device. In this manner, the printer driver does not have to reply upon installed printer driver files for knowing the installed options and available option attributes for a printing device. Instead, the printer driver retrieves the configuration data from the printing device and uses the program logic data contained in the configuration data to generate and update the graphical user interface in response to user selections. This allows the printer driver to always generate a graphical user interface that reflects the current installed options and option attributes for the printing device.

It is respectfully submitted that at least the Claim 1 limitations “use the program logic data retrieved from the printing device to: generate one or more graphical user interface objects that are displayed on a graphical user interface in association with the printing of an electronic document to the printing device, wherein the one or more graphical user interface objects indicate the installed options and available option attributes for the printing device as indicated by the program logic data” and “in response to a user selection, from the one or more graphical user interface objects, of a particular graphical user interface object that corresponds to a particular installed option, generate and cause to be displayed on the graphical user interface one or more other graphical user interface objects that visually depict one or more option attributes that are available for the particular installed option on the printing device” are not taught or suggested by *Perkins* and *Shin*, considered alone or in combination.

*Perkins* describes a generic printer driver that is capable of receiving printer self-description data from a printer and using the self-description data to present printer-specific printing options to a user and to format a print job using printer-specific commands and information. There is no teaching or suggestion in *Perkins* that the self-description data retrieved from a printer includes program logic data that “indicates dependencies between the installed options and option attributes on the printing device.” The examples described and depicted in *Perkins* include only a simple selection of options, without any indicated dependencies between options and option values. In addition, there is no indication that the self-description data is used by the workstation to generate and update the GUI in the manner recited in Claim 1. In particular, there is no indication in *Perkins* that the self-description data retrieved from the printer is used by a workstation to “in response to a user selection, from the one or more graphical user interface objects, of a particular graphical user interface object that corresponds to

a particular installed option, generate and cause to be displayed on the graphical user interface one or more other graphical user interface objects that visually depict one or more option attributes that are available for the particular installed option on the printing device.”

*Shin* describes a memory-saving printer driver that is capable of controlling output image aspects and quality. The printer driver reduces the amount of color correction tables required to generate quality images and therefore the amount of memory required to store the color correction table. The printer driver is capable of generating a graphical user interface for selecting output image aspects. There is no indication that the printer driver retrieves from a printer includes program logic data that “indicates dependencies between the installed options and option attributes on the printing device” and is used by the printer driver to update the GUI in response to a user selection of a particular printer option in the manner recited in Claim 1. In *Shin*, the printer driver user interface capability is integral to the printer driver and is provided when the printer driver is installed.

In view of the foregoing, it is respectfully submitted that at least the Claim 1 limitations “use the program logic data retrieved from the printing device to: generate one or more graphical user interface objects that are displayed on a graphical user interface in association with the printing of an electronic document to the printing device, wherein the one or more graphical user interface objects indicate the installed options and available option attributes for the printing device as indicated by the program logic data” and “in response to a user selection, from the one or more graphical user interface objects, of a particular graphical user interface object that corresponds to a particular installed option, generate and cause to be displayed on the graphical user interface one or more other graphical user interface objects that visually depict one or more option attributes that are available for the particular installed option on the printing device” are not taught or suggested by *Perkins* and *Shin*, considered alone or in combination.

*Katamoto* describes an image processing system that allows marginless printing of images. *Katamoto* describes that the printer driver is capable of determining whether marginless printing is supported by a printer. There is no indication however, that the printer driver is capable of retrieving from a printer program logic data that “indicates dependencies between the installed options and option attributes on the printing device” and that is used by the printer driver to update the GUI in response to a user selection of a particular printer option in the

manner recited in Claim 1. It is therefore respectfully submitted that the aforementioned limitations are also not taught or suggested by *Katamoto*.

In view of the foregoing, it is respectfully submitted that Claim 1 recites one or more limitations that are not taught or suggested by *Perkins* and *Shin*, considered alone or in combination, and that Claim 1 is patentable over *Perkins* and *Shin*.

#### CLAIMS 2 AND 7-9

Claims 2 and 7-9 all depend from Claim 1 and include all of the limitations of Claim 1. It is therefore respectfully submitted that Claims 2 and 7-9 are patentable over *Perkins* and *Shin* for at least the reasons set forth herein with respect to Claim 1. Furthermore, it is respectfully submitted that Claims 2 and 7-9 recite additional limitations that independently render them patentable over *Perkins* and *Shin*.

In view of the foregoing, it is respectfully submitted that Claims 1, 2, 8 and 9 are patentable over *Perkins* and *Shin*. Accordingly, reconsideration and withdrawal of the rejection of Claims 1, 2, 8 and 9 under 35 U.S.C. § 103(a) as being unpatentable over *Perkins* in view of *Shin* is respectfully requested.

#### REJECTION OF CLAIMS 4-6 UNDER 35 U.S.C. § 103(a)

Claims 4-6 are rejected under 35 U.S.C. § 103(a) as being unpatentable over *Perkins* in view of *Shin* and further in view of *Hanson*, U.S. Patent No. 6,148,346 (hereinafter "*Hanson*"). It is respectfully submitted that Claims 4-6 are patentable over *Perkins*, *Shin* and *Hanson*, considered alone or in combination, for at least the reasons provided hereinafter.

Claims 4-6 depend from Claim 1 and include all of the limitations of Claim 1. As previously described herein, Claim 1 recites one or more limitations pertaining to the use by the printer driver of program logic data retrieved from a printing device that indicates dependencies between the installed options and option attributes on the printing device that are not taught or suggested by *Perkins* or *Shin*. It is also respectfully submitted that these limitations are not taught or suggested by *Hanson* and it is understood that *Hanson* is relied upon for teaching the additional limitations recited in Claim 4-6 and not the limitations recited in Claim 1. It is therefore respectfully submitted that Claims 4-6 recite one or more limitations that are not taught or suggested by *Perkins*, *Shin* and *Hanson*, considered alone or in combination, and that Claim 1

is therefore patentable over *Perkins, Shin* and *Hanson*. Accordingly, reconsideration and withdrawal of the rejection of Claims 4-6 under 35 U.S.C. § 103(a) as being unpatentable over *Perkins* in view of *Shin* and further in view of *Hanson* is respectfully requested.

#### **REJECTION OF CLAIMS 12 AND 13 UNDER 35 U.S.C. § 103(a)**

Claims 12 and 13 are rejected under 35 U.S.C. § 103(a) as being unpatentable over *Perkins*, in view of *Shin* and further in view of *Allen*, U.S. Patent Publication No. 2004/0143651 (hereinafter “*Allen*”). It is respectfully submitted that Claims 12 and 13 are patentable over *Perkins, Shin* and *Allen*, considered alone or in combination, for at least the reasons provided hereinafter.

Claims 12 and 13 depend from Claim 1 and include all of the limitations of Claim 1. As previously described herein, Claim 1 recites one or more limitations pertaining to the use by the printer driver of program logic data retrieved from a printing device that indicates dependencies between the installed options and option attributes on the printing device that are not taught or suggested by *Perkins* or *Shin*. It is also respectfully submitted that these limitations are not taught or suggested by *Allen* and it is understood that *Allen* is relied upon for teaching the additional limitations recited in Claim 12 and 13 and not the limitations recited in Claim 1. It is therefore respectfully submitted that Claims 12 and 13 recite one or more limitations that are not taught or suggested by *Perkins, Shin* and *Allen*, considered alone or in combination, and that Claim 1 is therefore patentable over *Perkins, Shin* and *Allen*. Accordingly, reconsideration and withdrawal of the rejection of Claims 12 and 13 under 35 U.S.C. § 103(a) as being unpatentable over *Perkins* in view of *Shin* and further in view of *Allen* is respectfully requested.

#### **REJECTION OF CLAIM 14 UNDER 35 U.S.C. § 103(a)**

Claim 14 is rejected under 35 U.S.C. § 103(a) as being unpatentable over *Perkins*, in view of *Shin* and further in view of *Vidyanand*, U.S. Patent No. 6,967,728 (hereinafter “*Vidyanand*”). It is respectfully submitted that Claim 14 is patentable over *Perkins, Shin* and *Vidyanand*, considered alone or in combination, for at least the reasons provided hereinafter.

Claim 14 depends from Claim 1 and includes all of the limitations of Claim 1. As previously described herein, Claim 1 recites one or more limitations pertaining to the use by the printer driver of program logic data retrieved from a printing device that indicates dependencies

between the installed options and option attributes on the printing device that are not taught or suggested by *Perkins* or *Shin*. It is also respectfully submitted that these limitations are not taught or suggested by *Vidyanand* and it is understood that *Vidyanand* is relied upon for teaching the additional limitations recited in Claim 14 and not the limitations recited in Claim 1. It is therefore respectfully submitted that Claim 14 recites one or more limitations that are not taught or suggested by *Perkins*, *Shin* and *Vidyanand*, considered alone or in combination, and that Claim 14 is therefore patentable over *Perkins*, *Shin* and *Vidyanand*. Accordingly, reconsideration and withdrawal of the rejection of Claim 14 under 35 U.S.C. § 103(a) as being unpatentable over *Perkins* in view of *Shin* and further in view of *Vidyanand* is respectfully requested.

#### **REJECTION OF CLAIMS 15-17 AND 20 UNDER 35 U.S.C. § 103(a)**

Claims 15-17 and 20 are rejected under 35 U.S.C. § 103(a) as being unpatentable over *Perkins*, in view of *Hanson* and further in view of *Jin*, U.S. Patent Publication No. 2003/058285 (hereinafter "*Jin*"). This rejection is moot in view of the cancelation of Claims 15-17 and 20. Accordingly, reconsideration and withdrawal of the rejection of Claims 15-17 and 20 under 35 U.S.C. § 103(a) as being unpatentable over *Perkins* in view of *Hanson* is respectfully requested.

#### **REJECTION OF CLAIM 18 UNDER 35 U.S.C. § 103(a)**

Claim 18 is rejected under 35 U.S.C. § 103(a) as being unpatentable over *Perkins*, in view of *Hanson* and further in view of *Jin* and *Wilson*, GB Patent No. 2,347,766 (hereinafter "*Wilson*"). This rejection is moot in view of the cancelation of Claim 18. Accordingly, reconsideration and withdrawal of the rejection of Claim 18 under 35 U.S.C. § 103(a) as being unpatentable over *Perkins* in view of *Hanson* and further in view of *Jin* and *Wilson* is respectfully requested.

#### **REJECTION OF CLAIM 19 UNDER 35 U.S.C. § 103(a)**

Claim 19 is rejected under 35 U.S.C. § 103(a) as being unpatentable over *Perkins*, in view of *Hanson* and further in view of *Jin* and *Vidyanand*. This rejection is moot in view of the cancelation of Claim 18. Accordingly, reconsideration and withdrawal of the rejection of Claim

19 under 35 U.S.C. § 103(a) as being unpatentable over *Perkins* in view of *Hanson* and further in view of *Jin* and *Vidyanand* is respectfully requested.

### CONCLUSION

It is respectfully submitted that all of the pending claims are in condition for allowance and the issuance of a notice of allowance is respectfully requested. If any applicable fee is missing or insufficient, throughout the pendency of this application, the Commissioner is hereby authorized to charge any applicable fees and to credit any overpayments to our Deposit Account No. 50-1302.

The Examiner is invited to contact the undersigned by telephone if the Examiner believes that such contact would be helpful in furthering the prosecution of this application.

Respectfully submitted,

HICKMAN PALERMO TRUONG & BECKER LLP

/EdwardABecker#37777/

Edward A. Becker

Reg. No. 37,777

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2055 Gateway Place, Suite 550  
San Jose, CA 95110  
(408) 414-1204  
Facsimile: (408) 414-1076